#INspirEDmath

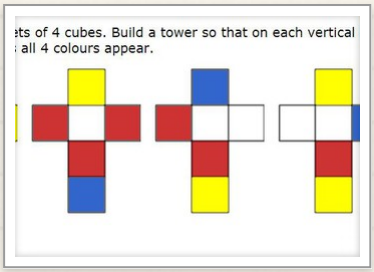
MAY 2019, VOLUME 10

LET THE COUNTDOWN BEGIN!

We have enjoyed spending the school year with you! Launching the first math newsletter from IDOE, sharing practical strategies and pedagogy for the K-12 math classroom, and learning about all of the wonderful things happening across the state to increase math engagement and interest has been some of our favorite things to do. With that, the math team will be taking the summer off! Well, just in terms of the newsletters, and really just for June! You will receive the next newsletter on the third Monday of July, just in time for the new school year. Next year we will continue to focus on embedding the eight effective teaching practices into classrooms across the state, but we also want to hear from you! What do you want to see in your inbox each month? We create this newsletter for you. Please take a moment to answer six quick questions and offer suggestions here!

https://www.youtube.com/watch?v=vbW3pwwJ6xA

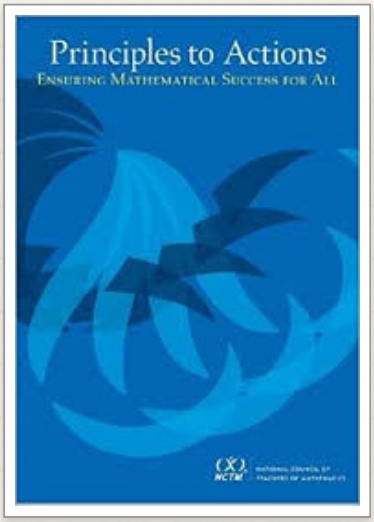
PROBLEM OF THE MONTH!



INSTANT INSANITY!

If you have never been to nrich.maths.org, get there now! NRICH's activities focus on developing problem solving. Their rich mathematical tasks build students' perseverance, mathematical reasoning, ability to apply knowledge creatively in unfamiliar contexts, and confidence in tackling new challenges. 'Low threshold, high ceiling' resources are designed to be accessible to all learners, encouraging exploration and discussion. Click here for a printable version of the activity.

MAY'S FOCUS: PRACTICE #8



1. Establishing mathematics goals to focus learning
2. Implement tasks that promote reasoning and problem solving
3. Use and connect mathematical representations
4. Facilitate meaningful discourse
5. Pose purposeful questions
6. Build procedural fluency from conceptual understanding
7. Support productive struggle in learning mathematics
8. **Elicit and use evidence of student thinking**

IS THIS JUST A NEW WAY TO SAY "FORMATIVE ASSESSMENT"?

Decisions about instruction should be based on evidence of what the students know and understand about mathematics. In order to see what students know and understand, teachers need to make student thinking visible. At the heart of it, this *is* formative assessment. Those two words create confusion and are misinterpreted often. (NCTM actually considered naming the eighth practice "formative assessment"!) The use of those words often suggest a more formal process and took away from the focus on the day-to-day, and even minute-to-minute need to gather and use evidence of student thinking needed to drive instructional decisions. It is not formal, it is just good teaching! So what is evidence? Evidence should:

- Provide a window into student thinking
- Help the teacher determine the extent to which students are hitting the intended learning targets.
- Be used to make instructional decisions during a lesson as well as in preparation for subsequent lessons.

Chamberlin, 2005; Jacobs, Lamb, & Philipp, 2010; Sleep & Boerst, 2010; van Es, 2010' Wiliam, 2007

"IF ASSESSMENT IS USED FOR NOTHING MORE THAN SORTING STUDENTS, WE WILL CONTINUE TO ACHIEVE THE RESULTS WE HAVE ALWAYS GOTTEN." (HATTIE, 2012)

Eliciting, Interpreting, and "Nudging" Student Thinking

How do we attend to, elicit, and interpret student thinking in the classroom? How do we advance student understanding?

Eliciting and Interpreting Evidence

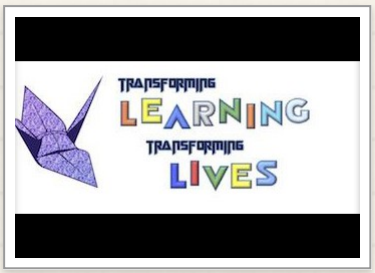
The learning experiences in which students are engaged can provide evidence of their learning.

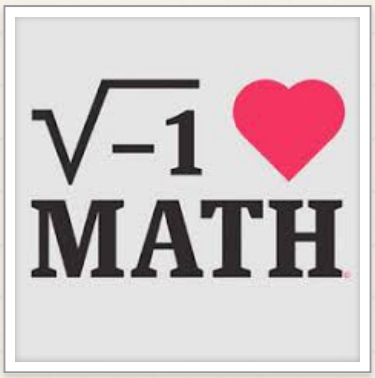
THE POWER OF FEEDBACK

When working with students, teachers can tell whether or not they need additional support in order to progress in their learning. The feedback teachers provide students helps them see their mistakes and misconceptions. This feedback has a powerful effect on student learning. Remember John Hattie's effect sizes? To allow a student to learn at a appropriate rate, a strategy, influence or action should have an effect size of 0.40. This implies a year of growth for a year of school. Feedback has an effect size of 0.70! Click here for a full list of influences related to achievement and their effect sizes!

Grades are not feedback. Feedback should be just-in-time, just-for-me information, and should be timely, specific, understandable by the student, and actionable (Brookhart, 2008). In order for feedback to work, teachers need to be aware of both the student's current level of performance and the expected level of performance.

OPPORTUNITIES FOR THE FIELD





ICTM FALL CONFERENCE

SAVE THE DATE! September 29 – 30

The 2019 ICTM State Conference will be held in Indianapolis at the Marriott East Hotel on September 29 and 30. Please plan to attend and watch for information about session proposals, conference and hotel registration, in upcoming newsletters. This year proposals are due April 30 and the submission system will be open March 30. Click here for more information and to submit a proposal!

ANALYTICAL ALGEBRA II REGIONAL SUMMER LEARNING & COLLABORATION

Join us for a deep dive into Analytical Algebra II. Over the course of two days, educators will receive resources and pedagogical strategies that can be used to implement the course. Educators will also be given meaningful work time to collaborate with colleagues from around the state. Click on the location to register. Additional information will follow to registered participants closer to the date.

Southern Indiana - June 4 - June 5 - Jasper, IN

Central Indiana - June 6 - June 7 - Indianapolis, IN

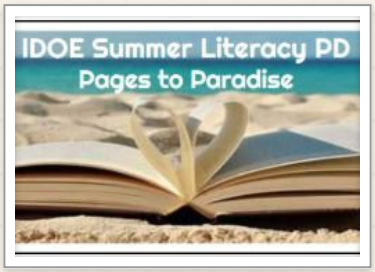
Northern Indiana - June 10 - June 11 - Warsaw, IN

INDIANA CCR BRIDGE MATH READY TRAINING

Are your students graduating "college and career ready" in mathematics? Are they pursuing 2-year or 4-year postsecondary options? Is math a roadblock for them? If so, this training is for you! This three-day training is for teachers planning to teach the CCR Bridge: Math Ready course next school year. Provided by a certified trainer from the Southern Regional Educational Board, this training will help you understand the purpose and the pedagogy of the course, as well as familiarize you with the course content and materials. HERE is more information about the course.

Additional information about the training as well as the potential to become a pilot school can be found here.

July 16 - July 18, 8:30 a.m. - 4:30 p.m. each day at the Indiana Association of School Principals building.



AP INSTITUTE

Do you teach Calculus AB and would like to enrich your practice? If you have been teaching this course for under three years, you are eligible to attend the AP Summer Institute for FREE. Seats are very limited, so hurry and register today! Please click here for details. Registrants will be notified upon registration, if they are one of the first 25 registered. Awardees are expected to participate in all four days of the AP Institute. Please do not accept free tuition* if you are unable or unsure you can attend the entire event.

*Tuition covers College Board materials, supplies, and lunch. It will not cover the cost of hotel accommodations, if they are needed.

FREE IDOE LITERACY PD- PAGES TO PARADISE

The Office of School Improvement Curriculum Team will be coming to a town near you this summer! *Pages to Paradise* is a professional development opportunity geared towards supporting educators and administrators of PK-12 schools focused on improving literacy instruction. Sessions include early learning, elementary literacy, secondary literacy, dyslexia, world languages, and high ability. We hope you'll join us for a half day of fun in the sun! Click here to register as seats are limited!

EXPLORING COGNITIVE DEMAND OF MATHEMATICAL TASKS AND ASSESSMENTS

Register here for a one-day workshop for middle school or high school teachers looking to explore and analyze the cognitive demand of assessments and tasks. This workshop will give participants an opportunity to analyze assessments and tasks of their own the lens of cognitive demand, and to modify items for use in their own classrooms.
Participants should bring four items: two assessments (one assessment they feel is an exemplar and another they would like to improve upon) and two tasks or ideas for tasks they would like to use in their classroom.

Middle school focus: Wednesday, June 19 in WALC 3090
High school focus: Tuesday, July 9 in WALC 3132
Participation is limited to 20 teachers per day.
There is no cost for attending and lunch will be provided!

EDUCATOR SPOTLIGHT: EMILY BRUNING

Let's give a big, warm welcome to our new Elementary Mathematics and Science Specialist, Emily!

My name is Emily Bruning. I have had the honor of being a classroom teacher for seven years in both private and public schools. I began my career at a private school in Bloomington, Indiana that specialized in serving children with dyslexia. After three years, I was offered a position in my hometown of Indianapolis, Indiana at an urban public school. Under an amazing mentor, who challenged me and allowed me to take risks, I grew as an educator and began pursuing my degree in educational leadership. I have worked with amazing educators and leaders and am proud to have served children in Indiana schools. I have a passion for helping teachers grow as leaders and look forward to supporting the great work of our Indiana teachers. I am excited for the new opportunities and challenges to come with my new role as elementary math and science specialist at IDOE. I look forward to connecting with educators and learning from their experiences.

Mathematics Educator Spotlight Nomination

We are looking for rock star math educators who are innovative and inspiring; educators who lead, learn, and collaborate with humility and passion. If you know someone (or are that someone) click the button and nominate them (or yourself)!

YOUR IDOE MATHEMATICS TEAM

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